

Zinc Deficiency Is Impossible On A Natural Animal-Based Diet

By Joachim Bartoll | Dec. 10th, 2024

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Today we return to T-Nation, the fitness wannabe supplement pushers that never have studied biochemistry, nor looked into simple biology or physiology. In their recent article on “zinc deficiency,” they once again fail to differentiate between organic and bioavailable minerals and inorganic non-bioavailable minerals. Let’s see what else they made a mess of.

“Relying on the RDI (Recommended Dietary Intake) system is tricky business. The RDI provides guidelines for nutrient intake. The problem? The system only aims to prevent deficiencies. How much vitamin D do you need? Just enough to prevent bone loss. The system all but ignores the benefits of getting more.”

Nope. RDI are strictly theoretical values presented by a board of agenda-driven and extremely incompetent morons. First they look at average blood levels of the nutrient in question among what they deem as “healthy” people, then they look at incompetent and moronic research among what “scientists” believe are “diseases” or “complications” caused by deficiencies.

The problem is that you cannot differentiate between organic and inorganic nutrients in a blood test. You do not know how much of that nutrient can be used by the body or how much that is simply circulating unused, slowly being neutralized and then expelled by the body — as any inorganic compound (from plants or artificial supplements) are extremely toxic and will cause tissue damage, so they need to be neutralized and expelled. However, your ability to

neutralize and expel toxins is dependent on your nutritional status and overall health. If you do not get enough animal foods, this process will be very slow and a lot of these toxic compounds can circulate for days and eventually attach themselves to tissues instead, causing an accumulation of toxic build up.

Blood Tests Detect Total Nutrient Content

According to biology, physiology, and biochemistry, a blood test does not differentiate between an inorganic unusable vitamin or mineral and a bioactive usable vitamin or mineral. It only shows the combined content of both types. This means that a blood test may not accurately reflect the body's usable vitamin or mineral levels, as it cannot distinguish between the two forms.

According to biology, physiology, and biochemistry, inorganic zinc from plant-based sources and supplements is not naturally bound to organic molecules, unlike endogenous zinc in the body. This inorganic zinc requires enzymatic chelation, a process that is inefficient and incomplete. As a result, **excess inorganic zinc can accumulate in tissues, leading to toxic damage.**

Nutrient deficiencies can significantly impact the chelation process of plant-based minerals, resulting in reduced bioavailability. Understanding these interactions is crucial for optimizing mineral absorption and utilization, particularly for individuals with inadequate diets or specific nutritional needs.

So, when you try to increase the presence of a nutrient by taking a supplement or by increasing a certain plant-based food, most of that nutrient will not be absorbed or converted by the body, instead it will end up in the blood just sitting there until the body can neutralize it. This gives a very skewed picture of your actual nutrient levels and what is actually being absorbed and used by the body.

Your blood work can look excellent due to bogus supplements or specific plant-based edibles, but none of that can be used by the body and thus you are actually malnourished. The failure to recognize this, which is simple biochemistry, makes everything about the RDI, about supplementation, about fortifying foods with artificial nutrients, or trying to get nutrients from vegetables, fruits or other plants totally irrelevant as almost nothing of that can be used in the body.

Plant Compounds Toxic to Humans

According to biology, biochemistry, and physiology, **plant compounds are inherently incompatible with human biology due to their chemical differences from compounds found in human cells.** This fundamental disparity renders plant compounds toxic to the human body.

According to biology, physiology, and biochemistry, vitamins and minerals in plants are available in inorganic form. However, humans need to convert them into organic bioactive compounds to utilize them. This conversion process is limited, resulting in a significant amount of inorganic compounds remaining in the body.

Conversion to Organic Bioactive Compounds

When humans consume plants, **the inorganic vitamins and minerals need to be converted into organic bioactive compounds to be utilized by the body.** This conversion process involves various biochemical reactions, including enzymatic reactions and metabolic pathways.

Limited Conversion Process

However, **the conversion process is limited, and not all inorganic vitamins and minerals can be converted into organic bioactive compounds.** As a result, **a significant amount of inorganic compounds remains in the body,** which may not be utilized effectively.

Thus, the RDI is totally meaningless as it's based on a population that is extremely sickly and malnourished compared to anyone who is following our natural animal-based diet. And that also means that we do not really know how much of a “vitamin” or “mineral” the body actually needs. But we do know that the only source of bioavailable nutrients that can be used by the body without any conversion or other costly processes are only found in animal foods — and that should always be our staple, the only food we should consume to guarantee that we are fully nourished and healthy.

According to physiological and biological principles, **animal-based foods are the sole source of all essential bioavailable nutrients required by humans.**

“With other things, like zinc, the RDI says that men need about 14 mg daily and women need about 8 mg. But food doesn't often comply with tidy little math formulas. For example, you may be hitting your RDI for zinc, but you also eat plants. Plants contain phytates that bind with zinc and inhibit absorption.”

At least you recognize antinutrients. However, that is only one part of the problem. While antinutrients will bind to the mineral within the plant as a protection mechanism (as the plant needs it to grow and survive,) thus making it difficult to digest and absorb for anyone consuming the plant, it will also bind to any other mineral it comes in contact with, and that will rob you of nutrients if you consume it and let it pass through your digestive system. So, if you for some reason have toxic vegetables or any other plant-based food along with your meat, a lot of the nutrients from that meat will actually be bound up by the antinutrients from the plant, rendering them totally useless.

Within biology, biochemistry, and physiology, antinutrients in plants are **naturally occurring compounds that interfere with the absorption and utilization of essential nutrients, such as vitamins, minerals, and amino acids, by humans and animals**. These compounds can bind to nutrients, inhibit enzymes, or alter gut physiology, thereby reducing the bioavailability of nutrients.

Antinutrients are compounds found in plant-based foods that can interfere with the absorption of essential nutrients by the human body. The effects of antinutrients on human physiology can be multifaceted:

- **Reduced nutrient bioavailability:** Antinutrients like phytic acid, tannins, and oxalates can bind to minerals like iron, zinc, and calcium, making them less available for absorption. This can lead to deficiencies, particularly in populations with inadequate diets.
- **Impaired digestion:** Some antinutrients, such as lectins and saponins, can cause gastrointestinal disturbances, including bloating, nausea, and diarrhea, by altering the gut microbiome and impairing enzyme activity.
- **Inflammation and immune response:** Certain antinutrients, like polyphenols and flavonoids, can stimulate an immune response and lead to inflammation, potentially exacerbating conditions like allergies, asthma, and autoimmune diseases.
- **Toxicity:** Heavy metals and other toxic compounds found in plant-based foods can accumulate in the body and cause harm, particularly in individuals with compromised kidney function or other health conditions.

However, that was only one problem, the next problem is bioconversion/chelation. From the little zinc you might be able to absorb from a plant, it's still inorganic and it needs to be converted into an organic and bioavailable version, just as the one we find in any animal-based food. And this conversion process is very limited, often resulting in only 10 to 60% of the mineral being converted while the rest of the remains are extremely toxic and will do great damage.

Plant Nutrients Require Conversion

According to biology, physiology, and biochemistry, vitamins, minerals, proteins, and unsaturated fats found in plants have distinct chemical structures that differ from those found in human tissues. This chemical disparity renders these plant-derived molecules non-bioavailable to humans, meaning they cannot be directly utilized by the body without modification.

Plant-based nutrients, however, **require conversion by the body before they can be utilized**. This conversion process can be incomplete, leading to a significant portion of these nutrients being excreted or stored as toxins in tissues. The body's inability to fully utilize plant-based nutrients can result in:

- **Excess accumulation of certain compounds, such as phytates, oxalates, or polyphenols**, which can become toxic to tissues.
- **Incomplete breakdown of complex carbohydrates, proteins, and fiber**, leading to impaired nutrient absorption and potential adverse effects.

According to biological and biochemical studies, **the average absorption rate of zinc from plant-based sources in humans is estimated to be around 20-30%**.

In biology and biochemistry, it is a fundamental principle that once a plant-based mineral is absorbed into the bloodstream, it must be chelated into the correct chemical bond to be utilized by tissues. Chelation is a process where the mineral ion is coordinated with two or more coordination atoms (non-metals) in the same molecule, forming a heterocyclic structure (chelate ring) containing the metal ion.

This chelation step is crucial for the mineral's bioavailability and functionality. Without proper chelation, the mineral ion may remain in its free form, unable to interact with target tissues or enzymes, thereby limiting its biological activity.

I covered this in-depth in my *“Supplemented Inorganic Zinc Increase Endometriosis Risk”* and *“The Need For Mineral Supplementation Equals A Lacking Diet,”* where I showed how a serving of spinach might contain 0.50 mg of zinc, but only 0.05 mg out of the 0.50 mg can be used by your body — which leaves 0.45 mg of toxic inorganic zinc that will do damage. The same is true for any ionic zinc supplement.

“Also, the more you sweat, the more zinc you lose. High-intensity exercise also increases zinc losses through pee and poop. Just lifting weights means you need more zinc than the average couch potato – you’re literally “damaging” your muscles so they’ll recover bigger and stronger. The recovery process requires additional zinc.”

Again, you T-Nation guys need to read up on simple physiology, biology and biochemistry. Your body will never excrete essential nutrients unless they are not needed. Your body would not let go of the zinc it would otherwise need for its chemical processes simply because you start moving and sweating a little. Would your body let you become nutrient deficient when going out hunting for food? Thinking or believing such a thing is frikkin’ retarded.

Nutrient Elimination: According to biology, physiology, and biochemistry, the body prioritizes the retention of essential nutrients. It will not eliminate these necessary nutrients, even through excessive sweating or exercise. Instead, the body will only eliminate what it does not need, ensuring that vital nutrients are conserved.

- **Sweating and Detoxification:** Sweating plays a role in increasing the detoxification of inorganic non-usable nutrients, helping to remove unwanted substances from the body.
- **Body's Regulatory Mechanisms:** The body has regulatory mechanisms in place to maintain nutrient balance and homeostasis, ensuring that essential nutrients are retained and utilized efficiently.

What actually is happening is that you detox through sweating and some of that excess toxic and inorganic zinc will be discarded through sweat and urine. In other words, the fact that you lose some zinc through sweat and urine is proof that the zinc you're getting is not bioavailable, it's not of animal origin, it's fake, it's from plants or worthless supplements.

Zinc Losses During Exercise and Sweating: According to biology, physiology, and biochemistry, exercising and sweating do not increase losses of bioavailable organic zinc. Instead, they increase the loss of inorganic toxic zinc that cannot be assimilated by the body. This process is part of the body's detoxification mechanism, where sweating helps to remove harmful substances, including inorganic toxic zinc, from the body.

So, thanks, you uneducated T-Nation writers, for proving my point (as backed by real research within the field of biochemistry.)

“Then there’s simple aging. The older you get, the less efficiently zinc absorbs. Enjoy having a drink or two? Well crap, alcohol interferes with zinc absorption. And so do high blood pressure meds, antacids, and antibiotics.”

It has nothing to do with age. You need to be specific. It has to do with “wear and tear” from consuming non-species appropriate foods, such as fiber, carbohydrates, and all the antinutrients and defense chemicals found in plants, as they all damage the intestines and especially the colon, reducing your capacity to absorb nutrients, especially minerals.

Nutrient Absorption and Aging: According to biology, physiology, and biochemistry, the decrease in nutrient absorption in the digestive system is not directly related to aging. Instead, it is influenced by wear and tear from consuming non-species appropriate foods and toxins that cause damage to the digestive system.

In other words, someone following our species-appropriate diet of only animal-based foods will do no damage at all, and thus have excellent gut health and nutrient absorption at the age of, for example, 80, while someone who has been following a retarded modern diet will have severe damage done to his or her gut and a very low rate of absorption. So, it’s not age, which is very easy to blame when you lack understanding or can’t explain simple things. It’s all about the damage you do — as in the accumulation of damage over the years that pass by.

But yes, most drugs, medicines, herbs, or other idiotic “remedies” will also interfere with nutrient absorption due to their toxic nature and your body prioritizing the acute state of poisoning after consuming any of these. And of course, any kind of plant-based “remedy,” as in herbs, are not only extremely toxic, they contain a shitload of antinutrients as well.

“In short, you can meet the RDI guidelines for zinc and still have a deficiency or insufficiency. Let’s look at the symptoms of low zinc and figure out how to fix the issue.”

Again, meeting the RDI guidelines are irrelevant, and even more so if you consume any kind of zinc that does not come from an animal origin, as all these will be inorganic, non-bioavailable, and also toxic.

- *“Low Testosterone: Zinc is essential for the proper functioning of the HPG axis, which regulates testosterone production. It helps in the synthesis and release of luteinizing hormone (LH), which signals the testes to pump out testosterone. Zinc also plays a direct role in the conversion of cholesterol into testosterone and helps maintain a balance between testosterone and estrogen. Without enough zinc, aromatase becomes more active, converting T to E. In studies, restricting zinc intake in young men led to a significant decline in testosterone. And, when zinc-deficient older men were given zinc supplements, their testosterone levels increased.*
- *Low Libido, Especially in Women: In one study, when women low in zinc supplemented with it, their testosterone levels nearly doubled, leading to more sexual satisfaction.*
- *Hair Loss: Zinc is essential for maintaining healthy hair follicles.*
- *Weakened Immune Function: Increased susceptibility to infections and longer recovery times.*
- *Delayed Wound Healing: Cuts take longer to heal.*
- *Skin Problems: Dry, flaky skin, eczema, rashes, etc.*
- *Loss of Appetite: Zinc deficiency reduces appetite.*
- *Cognitive, Behavioral, and Mood Issues: Zinc is crucial for brain function. Deficiencies are linked to poor concentration, memory issues, irritability, depression, and anxiety.*
- *Other Issues: Impaired taste and smell, eye problems, and diarrhea.”*

Yes, from our current understanding and research, this is what the larger community of “research and science” has agreed upon. So, let’s continue.

There is only one way, but let’s see what these supplement-pushing fools at T-Nation suggests.

“Eating oysters every day certainly does the trick, but it’s not practical for most of us. Alaskan crab comes in a very distant second, and red meat after that. Seeds and legumes are okay, but bioavailability is low in all plant sources. But even with plenty of zinc-containing foods, we still run into all those problems mentioned above: loss of zinc through sweat and exercise recovery, phytate binding, etc.”

Well, not much logic there. Yes, all animal sources have plenty of zinc, especially oysters and crab — but red meat, organ meats, and other meats, and also eggs have more than enough to meet your needs in any situation.

Zinc Sources and Bioavailability: According to biology, physiology, and biochemistry, animal-based foods are the only sources of organic bioavailable zinc that do not require chelation in the body. This means that zinc from animal-based foods, such as meats, seafood, and dairy, is readily available for the body to use without needing to be bound to another molecule. Consuming sufficient amounts of these foods can provide adequate zinc intake, reducing the risk of zinc deficiency.

And again you actually mentioned the abysmal bioavailability of plants, but not the extreme toxic problem with the inorganic compounds that remain unconverted.

Also, I have already debunked the silly sweating and exercising myth, and antinutrient binding is only a problem if you are so frikkin' retarded that you continue to consume plants together with your meat. Throw those toxic non-food plant items in the trash bin and never look back!

"To be sure, supplement and only use the chelated form. Chelation is the process where minerals are bound to amino acids so they're easily absorbed. Chelation also protects zinc from the phytate-binding problem. The gold-standard chelation method is called the Albion process."

And there it is, the supplement plug, where T-Nation go full retard. I have already debunked and explained this in my article "[The Need For Mineral Supplementation Equals A Lacking Diet.](#)"

According to biology, physiology, and biochemistry, **all nutrients or compounds in artificial supplements undergo a conversion process to become bioactive in the body.** This conversion is inherently limited, and the remaining non-converted compounds can be toxic and cause harm.

Supplement Mineral Absorption Issues

In biology, biochemistry, and physiology, research has consistently shown that **minerals from supplements are often not correctly chemically bound, leading to poor absorption and potential toxicity.** This can occur when the mineral builds up in the blood, causing damage and contributing to the formation of plaque.

The buildup of unabsorbed minerals in the blood can lead to toxicity, as the body struggles to eliminate excess amounts. This can cause damage to tissues and organs, potentially contributing to the development of conditions like atherosclerosis (plaque buildup in arteries) and other chronic diseases.

It is still not the same chelation that takes place in living beings, as in animals and humans. And while the absorption seems to be a little bit better with that chelation process compared to ionic minerals, it's still very bad and a lot of that zinc will remain inorganic and do damage to your body. Never go for supplements, always go for the natural source, that of animal foods.

And that takes us to the real conclusion. If you already are following our natural animal-based diet, there is never any reason to worry about deficiencies. You will get more than enough of all essential nutrients.

However, if you've been deceived into limiting or eliminating animal foods, then you will likely already have several nutrient deficiencies, including zinc. And the only way to actually remedy that without harming your body is to increase your consumption of animal-based foods and eliminate as much plant-based crap as possible, preferably going full carnivore, which is the only way to gain superior and true health.

It's that simple. No expensive supplements needed. No expensive consulting from bogus nutritionists or dieticians. Just start eating according to your species.

If you need help with any kind of health problems or transitioning from your current way of eating to our natural species-appropriate, species-specific way of eating, I'm available for both coaching and consultation.

Coaching and Consultation

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